

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

**MAILED**

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

**SEP 27 2002**

PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte CLIVE J. SHIFF and THADDEUS K. GRACZYK

Appeal No. 2001-1490  
Application No. 09/006,999

ON BRIEF

Before THOMAS, BARRETT, and BLANKENSHIP, Administrative Patent Judges.

BLANKENSHIP, Administrative Patent Judge.

REMAND and ORDER

This is a remand of the application on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1, 4, 6-8, and 10-12.

Because we conclude that the instant record is not in a form that permits reaching a reasoned decision at this time, we vacate the rejection and remand the application.<sup>1</sup> Additionally, appellants are given a non-extendable time period of THIRTY

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<sup>1</sup> The rejection is set aside and no longer exists. Ex parte Zambrano, 58 USPQ2d 1312, 1313 (Bd. Pat. App. & Inter. 2001) (nonprecedential). Jurisdiction over the application returns to the examiner.

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(30) DAYS from the mailing date of this paper to respond to a requirement (set forth infra) under 37 CFR § 1.196(d).

### BACKGROUND

According to appellants, the invention is directed to a continuous flow centrifuge adapted with an insert of glass beads, sand, or the like to concentrate cysts of microorganisms such as Cryptosporidium from large volumes of water. Claim 1 is reproduced below.

1. In a continuous flow centrifuge apparatus, the improvement comprising the addition of a filtration column of particulate material.

The examiner relies on the following references:

Borchardt et al. (Borchardt)	5,846,439	Dec. 8, 1998 (filed Feb. 28, 1996)
Leu	5,866,071	Feb. 2, 1999 (filed Mar. 6, 1996)

Claims 1, 4, 6-8, and 10-12 have been rejected under 35 U.S.C. § 103 as being unpatentable over Borchardt and Leu.

We refer to the Final Rejection (Paper No. 13) and the Examiner's Answer (Paper No. 16) for a statement of the examiner's position and to the Brief (Paper No. 15) for appellants' position with respect to the claims which stand rejected.

## DISCUSSION

### The rejection

The section 103 rejection of claim 1 (Final Rejection at 2) contends that Borchardt teaches the claimed invention "except for the use of a particulate filtration column." The rejection then turns to Leu as teaching a "particulate filtration column" shown in Figures 4A through 4C, and described by material in columns 2 and 3 of the reference.

Claim 1, however, requires a "filtration column of particulate material," rather than a "particulate filtration column." In any event, the rejection does not specify the structure in Leu deemed to be a "particulate filtration column."

Leu discloses (Fig. 3A) a centrifuge tube 45 having a tubular orifice 46 at the bottom, and built-in tubing 47. Col. 2, l. 62 - col. 3, l. 3. As described in column 3 of the reference, before centrifugation, medium having highest density is injected first. The amount of the medium must be sufficient to go over the height of the funnel shape bottom 48 and to fill the built-in tubing 47. Other media are then introduced into the centrifuge tube 45. After centrifugation, fluent connector 44 and tubing 41 (Fig. 3C) may be used to collect each layer that has been separated from the others according to its respective density. Figures 3B and 5A through 5C show an alternative embodiment having a small chamber beneath the funnel shape bottom 48 to allow sedimentation of pellets to prevent clogging of the bottom (and thus prevent clogging of the tubing). Col. 4, ll. 8-21.

As further described at column 4, lines 35 through 59, Figure 4A shows the densest material d1 (8 ml of 20% dextran), with materials of lesser density placed in sequential order (d2-d5), along with 1 ml of digested pancreatic fragments PO. After centrifugation (Figs. 4B and 4C), the separated layers may be removed, one layer at a time, by means of outer tubing connected to the built-in tubing.

We do not find a "filtration column of particulate material" in Leu. We find no description of "filtration" in the reference. In particular, we find no description of "filtration" in the portion of the reference identified by the rejection. Nor do we understand what the rejection deems to be the "particulate material" in the reference. The "filtration column of particulate material" is language appearing in most of the claims on appeal. Claim 12 recites a "filtration column of graded glass beads or sand," and thus also requires a form of "filtration column."

Whitmore et al.

We do not simply reverse the rejection before us, however, because we note that Borchardt describes a publication that may be more pertinent to the instant claimed subject matter than the references which have been applied. The examiner and appellants discuss (e.g., Answer at 4; Brief at 4) the "sand column system" described at column 2 of Borchardt. However, in view of column 2, lines 11 through 56 of the reference, and in particular the discussion of the prior art work of "Whitmore et al.," we find that Borchardt reports that the Whitmore et al. reference describes a bowl-type

continuous flow centrifuge having a sand column system for retaining *Cryptosporidium* oocysts.

Borchardt at column 2 describes "Whitmore et al." as evaluating vortex-flow, cross-flow or tangential, and sand column filtration. Column 2, lines 20 through 26 reports recovery rates for vortex-flow and cross-flow or tangential filtration. Column 2, lines 47 through 49 refers back to the "Whitmore et al. studies cited above" as evaluating a bowl-type continuous flow centrifuge, with a recovery percentage different from the vortex-flow and cross-flow or tangential filtration methods. Thus, Borchardt is interpreted as referring to the Whitmore et al. reference as disclosing a bowl-type continuous flow centrifuge having a sand column system for retaining *Cryptosporidium* oocysts.

In view of the broad scope of many of the instant claims and Borchardt's description of the prior art apparatus of Whitmore et al., Borchardt could be viewed as a reference that anticipates some or most of the instant claims.<sup>2</sup> Appellants argue (Brief at 4) with regard to alleged advantages of the "tubes" of the instant invention. The instant specification (at 6) carefully defines the term "Centrifuge tube." However, the claims before us do not recite any "tubes" or "centrifuge tubes."<sup>3</sup>

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<sup>2</sup> We note that appellants argue (Brief at 4) that the "sand column system" described in Borchardt "teaches away" from the present invention. While a "teaching away" would be relevant in an obviousness inquiry, a deemed "teaching away" would be irrelevant in resolving a question of anticipation.

<sup>3</sup> In view of the claims presented and appellants' arguments presented in the Brief (e.g., at 7), a clear definition of what appellants consider that a "continuous flow centrifuge apparatus" requires would be more pertinent.

Rather than speculate with respect to the details of the "sand column system" that Whitmore et al. may provide, however, we remand this application, pursuant to 37 CFR § 1.196(a) and Manual of Patent Examining Procedure (MPEP) § 1211 (Eighth Ed., Aug. 2001), for the examiner to obtain a copy of the reference itself and evaluate the instant claims in view of the reference. Cf. 37 CFR § 1.104(c)(2) ("In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command.").

Order under 37 CFR § 1.196(d)

We construe language in the instant specification (at 4) as referring to a use of the instant invention (or an earlier version thereof) in Egypt that is reported by "Yousif et al." Pursuant to our authority under 37 CFR § 1.196(d), we direct that appellants provide a copy (or copies) of the publication(s) to the examiner.<sup>4</sup> Appellants are given a non-extendable time period of THIRTY (30) DAYS from the mailing date of this paper to provide the copy (or copies) of the relevant publication(s).

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<sup>4</sup> The information we require under 37 CFR § 1.196(d) is of the type that may be required by an examiner under 37 CFR § 1.105.

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### CONCLUSION

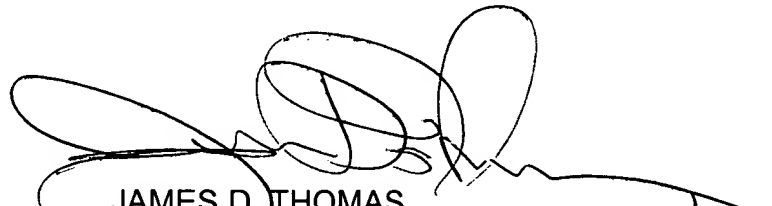
The examiner's decision in rejecting claims 1, 4, 6-8, and 10-12 is vacated. The application is remanded to the examiner for action not inconsistent with the views expressed herein.

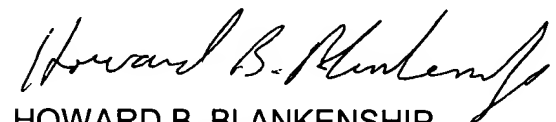
Appellants are given a non-extendable time period of THIRTY (30) DAYS from the mailing date of this paper to respond to the above-noted requirement under 37 CFR § 1.196(d) (i.e., to submit to the examiner a copy (or copies) of the "Yousif et al." publication(s)).

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This decision is not considered final for purposes of judicial review. See 37 CFR § 1.192(e) ("Whenever a decision of the Board of Patent Appeals and Interferences includes or allows a remand, that decision shall not be considered a final decision.")

VACATED and REMANDED; 37 CFR § 1.196(d) ORDER

  
JAMES D. THOMAS  
Administrative Patent Judge

  
HOWARD B. BLANKENSHIP  
Administrative Patent Judge

) BOARD OF PATENT  
) APPEALS  
) AND  
) INTERFERENCES  
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BARRETT, Administrative Patent Judge, concurring-in-part and dissenting-in-part.

In my opinion, vacating and remanding is not the appropriate action in this case and I respectfully dissent. I would simply reverse the examiner's rejection. I concur in the requirement for information under 37 CFR § 1.196(d).

(1)

While I believe that the Board of Patent Appeals and Interferences has the authority to vacate an examiner's rejection, this is an extraordinary action which should be used only in very exceptional cases. This is not such a case. It appears that the reason for the vacatur is the broad scope of the claims and the possibility that the Whitmore reference discussed in column 2 of Borchardt may provide better information than the summary of Whitmore in Borchardt. Implicitly, the reason for vacating rather than reversing is so that the examiner can consider a rejection over Whitmore without having to get written permission to reopen prosecution under 37 CFR § 1.198.

The claims are extremely broad. In my opinion, the claims are so broad as to border on indefiniteness or on failing to claim what appellants regards as their invention. In particular, the claims do not recite where the filtration column of particulate matter is located; it does not have to be in the centrifuge tube, but could be in a stationary part of the centrifuge apparatus and still be in the fluid stream. Nevertheless, this issue has not been raised. The fact that claims are very broad is a reason why the examiner might want another chance to find better prior art, which vacating would provide.

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However, I presume that the examiner has cited the best prior art in making the rejection. The Board makes its decision based on the record provided by the examiner. There is no truth in the old saying that patents are "issued by the Board." The examiner cannot expect the Board to sustain a bad rejection just because the claims are broad, nor can the examiner blame anyone but himself or herself for failing to provide the prior art to reject broad claims. If the examiner is troubled by the breadth of the claims, he or she can always get permission to reopen prosecution under 37 CFR § 1.198.

It is not clear from the rejection (Paper No. 13, page 2) whether the examiner is relying on the description of continuous centrifugation in the prior art of Whitmore at column 2 of Borchardt, or is relying on the continuous centrifugation of the Borchardt invention itself. Assuming the examiner relies on the description of Whitmore, the description says no more than that continuous centrifugation may be used to isolate microorganisms, which teaches no more than the article by Barrett and Ellison, A Continuous Flow Centrifuge for Testing the Presence of Bilharzia Cercariae in Water, Cent. Afr. L. Med., Vol. 11, No. 11, 338-340, November 1965, cited in the specification at page 3, line 27 to page 4, line 2. I disagree with the majority's interpretation of Borchardt as referring to Whitmore as "disclosing a bowl-type continuous flow centrifuge having a sand column for retaining Cryptosporidium oocysts" (majority opinion, page 5). The description in Borchardt seems to say only that Whitmore evaluated several types of filtration, including a sand column (col. 2, lines 18-19).

(which I interpret to be a stationary column of sand acting as a filter), and continuous centrifugation (col. 2, lines 41-50), not a sand column in a continuous centrifugation system. Thus, I do not see evidence that Whitmore would be a better reference than Borchardt and would not vacate or remand for this reason.

I agree with the majority that Leu does not teach a "filtration column of particulate matter" because Leu does not describe filtration through particulate matter. Filtering implies passing a liquid or gas through a porous material to mechanically separate out suspended particulate matter and the liquid in Leu does not appear to flow through porous material. In any case, Leu does not suggest a filtration column of particulate matter in combination with a continuous flow centrifuge apparatus. This is appellants' invention and more is required to show obviousness than finding separate teachings of a continuous flow centrifuge and a filtration column of particulate matter. The examiner has not established a prima facie case of obviousness and I would reverse the rejection.

(2)

I concur in the requirement for information under 37 CFR § 1.196(d) because the description in the specification at page 4, lines 2-12, and the references to "Yousif et al., 1996" (spec. at 4, lines 6-7) and "Yousif et al., (1996)" (spec. at 4, lines 9-10) suggests a 1996 publication describing the invention, which is two years before the

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filing date of this application. This reference needs to be submitted and explained on the record.

  
LEE E. BARRETT  
Administrative Patent Judge

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